

PROCEEDINGS
OF THE
NEW ENGLAND ZOÖLOGICAL CLUB

REPTILES AND AMPHIBIANS FROM THE
BRITISH SOLOMON ISLANDS

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THE material, now in the Museum of Comparative Zoölogy, upon which this report is based, is probably the most extensive single collection ever made in the Solomons. Dr. W. M. Mann, the collector, visited many localities previously unworked and received much kind aid from both officials and traders, as well as missionaries. Acknowledgments to these various persons have been made by Dr. Mann himself, and he has also given a synopsis of the localities which he visited, as well as the duration of his sojourn in each one, so that it seems unnecessary to repeat these details here. (Cf. Mann, Bull. M. C. Z., 63, 1919, p. 273.)

The reptiles and amphibians of the Solomons have been made known almost wholly through the studies of Boulenger, based upon the famous collections of Guppy and Woodford. Boulenger suspected that our knowledge of the fauna was fast approaching completion, when the last two collections made by Woodford, *viz.*, those reported upon in the Proceedings of the Zoölogical Society for 1888 and 1890, contained only a few species which hitherto were unknown. Mann's large booty only emphasizes this fact, and we now may safely say that the fauna is really well known—unless exploration of the highlands of the interior of the islands reveals unexpected upland forms. The interior of the islands remains little known.

The fauna of the Solomons, so far as concerns the reptiles and amphibians, is obviously Papuan and not Australian in its origin. The fauna of the group also is more homogeneous than at first appeared, when Boulenger noted that Faro was more Papuan than San Cristóbal. This homogeneity is most significant, for the species which occur widely in the Solomons, in general are absent from New Britain and New Ireland, and this fact indicates a long period of isolation during which the islands were not broken up into small land masses as they are at present. The phylogenetic development of *Ceratobatrachus* and *Batrachylodes* must perforce have been a slow process. The latter was supposed to be confined to Faro, but Dr. Mann found it upon New Georgia, hence it probably occurs as widely spread as *Ceratobatrachus* itself, which is better known since it is far more conspicuous. Dr. Mann's large series of several of the amphibians reveal hitherto unsuspected variability, and several species in the past considered to be distinct are forced into the synonymy. This affects the number of species of *Rana*, *Hyla* and *Cornufer* which have been recorded. But after these reductions have been made, and the new locality records added, the final facies of the fauna remains essentially unchanged. It still appears an ancient, somewhat depauperate, continental, and not an oceanic, fauna which probably has spread under rather adverse conditions. The amphibians reaching the group are those which could disperse themselves and reproduce in areas where standing water in the shape of ponds or permanent pools is practically non-existent, and where heavy rainfall and steep hills combine to form torrents which would carry off larvae rather than permit their leisurely development. Thus those forms have persisted, which have skipped a free-swimming larval stage. Van Kampen has well expressed these ideas. (Bijblad. Nat. tijd Ned. Indië, 3, 4, 1909, pp. 1-24. Translated by T. Barbour, Amer. Nat., 45, 1911, p. 537-560). A general discussion of the relation of the fauna of the Solomon Islands with that of the neighboring regions may be found in my 'Contribution to the Zoögeography of the East Indian Islands.' (Mem. M.C.Z., 44, 1912, p. 59-62.)

AMPHIBIA SALIENTIA

Hyla thesaurens Peters

Hyla thesaurens Peters, Mon. Berl. Ac., 1877, p. 421.

Hyla macrops Boulenger, Ann. Mag. Nat. Hist. (5), 12, 1883, p. 164;
Trans. Zoöl. Soc., 12, 1886, p. 59, pl. 11, fig. 3.

Hyla lutea Boulenger, P. Z. S., 1887, p. 337, pl. 28, fig. 4.

Peters' type was a young specimen, 28 mm. in length. The measurements which Boulenger gave when he described *H. macrops* were: male, 38 mm., and female, 54 mm., in length, while later he stated *H. lutea* to be 67 mm. long. Boulenger himself was in doubt as to the validity of *macrops*, and (1886) inclined to consider it a color variety only of *thesaurens*. *H. lutea*, however, was said to have the fingers half webbed; while in *macrops* no web in the fingers is mentioned, and Peters also states that the fingers are free in *thesaurens*. Boulenger mentions a slight trace of finger web in the little, 31-mm.-long individual which in 1886 he called *thesaurens*. The character seems to be variable, and while none of our specimens shows as much web as is drawn in his figure of *lutea*, nevertheless many of them do show a very considerable and a very variable degree of webbing. The types of *thesaurens* and *macrops* both came from Treasury Island, those of *lutea* from Faro, near by. Mann's booty shows that the species is very abundant, and wide-ranging throughout the group. We have the following specimens:—

One from Fulakora, Ysabel Island, small, colored as the type of *thesaurens*; four, two adults and two young, from Yandina, Russell or Pavuvu Island, northeast of Guadalcanar (Lat. 9° 4' S., Long. 159° 5' E.); one adult from Rubiana Lagoon, New Georgia; twelve adults from Ysabel. A very variable series, as to finger webs; three adults from Tulagi, two males and one female, fingers of male less webbed than the female's; two adults from Malaita, near the coast; ten adults from Malaita, high hills of the interior.

Ceratobatrachus guentheri Boulenger

Ceratobatrachus guentheri Boulenger, P. Z. S., 1884, p. 212; Trans. Zoöl. Soc., 12, 1886, p. 56, pls. 12-13.

The Museum previously considered itself very fortunate to possess two of the types of this beautiful frog, which Mr. Guppy collected upon Faro Island. Dr. Mann found it abundant, as did Guppy, who, however, found it only on Faro and Treasury Islands. Our collection contains the following:

Seven from Ysabel; three from Tulagi; seventeen¹ from Malaita, and one from Atta high in the interior of Malaita, a region hitherto unvisited by white men.

Boulenger created a special family to include this monotypic genus alone, the *Ceratobatrachidae*. The only character, however, which separated it from the Ranidae was the possession of teeth on both upper and lower jaw. Recent studies of some of the South American Leptodaetylid genera show that teeth on the jaws may be very easily lost and probably almost as easily acquired, so that families based on the presence or absence of teeth alone are likely to be unnatural assemblages, and frequently to separate very closely allied species. A case in point is to be seen in the frogs of the Andean Lakes Titicaca and Junin. About Titicaca *Telmatobius aemaricus* is an abundant inhabitant of the brooks and swamps, while its apparent derivative *T. culeus* inhabits the deep water of the lake and is highly modified for a wholly aquatic existence. About Lakes Junin and Jauja-paca *T. jelskii* occurs as an abundant terrestrial form, while its strictly aquatic ally in the deep lakes is *Batrachophrynus microphthalmus*, a form modified similarly to *T. culeus*, but which has gone a single short step further and has lost its vomerine and maxillary teeth. It has been placed in the *Batrachophrynidae*, when in reality to put it in a genus other than *Telmatobius* is to mask its true relationship. So here it seems best to suggest

¹ From this series specimens already have been distributed to the Museums in Washington, New York, Leyden and Ann Arbor.

the suppression of the family *Ceratobatrachidae*, as being based on insufficient grounds, although it must be confessed that it is at present hard to suggest any very close relatives for this most curious form or to postulate its immediate ancestor. As the family is monotypic no unnatural assemblage is possible. Vankampen¹ proposes to consider this a subfamily, which is perhaps a convenient solution.

***Batrachylodes vertebralis* Boulenger**

Batrachylodes vertebralis Boulenger, P. Z. S., 1887, p. 337, pl. 28, fig. 3.

Three specimens from Marova Lagoon, New Georgia Island, Solomon Islands.

Of these one example, a male, is marked as is Boulenger's figure (P. Z. S., 1887, p. 387, pl. 28, fig. 3); the other two, one a male also, are marked very differently. In one the dorsum is dark brown, with no light mid-vertebral stripe, and with the sides dirty yellowish, and below this another dark zone and then the belly creamy yellow. In the third example the colors are reversed; the dorsum is dirty yellowish, quite immaculate, the sides dark but flecked with lighter spots, while the belly is creamy yellow. In all three the throats are somewhat suffused with dusky gray. Another noteworthy character, which is not mentioned by Boulenger (his unique type was a female), is that in our three examples, which all are males, the snout is projected anteriorly at the tip and slightly thickened at the lip margin, very much as is sometimes seen in *Leptodactylus albilabris*. What may be the significance of this modification, I do not know. In *Leptodactylus* it does not seem to be a sex-linked character (cf. Bull. M. C. Z., 63, 1920, p. 406). This, however, does not mean that it may not be such a character in *Batrachylodes*. In this genus it is less conspicuous, but nevertheless it

¹ Die Amphibienfauna von Neu-Guinea; Fest-nummer, Bijl tot de Dierkunde, Kon. Zool. Genoots "Natura Artis Magistra; part 21, Amsterdam, 1919, p. 51.

very strongly suggests something more than a mere fortuitous somatic variation, and forces still the inclination to conclude that this modification, which quite surely must aid either in burrowing in the ground or in pushing under logs and stones, is very probably an adaptation acquired to this end.

The stomach of our specimens contained only ants and a few small chilopods.

Platymantis solomonis (Boulenger)

Plates II, III, IV

Cornufer solomonis Boulenger, P. Z. S., 1884, p. 212; Trans. Zoöl. Soc., 12, 1886, p. 54, pl. 11, fig. 2.

Cornufer corrugatus Boulenger, P. Z. S., 1888, p. 88.

Platymantis solomonis Boulenger, Ann. Mag. Nat. Hist., (9), 1, 1918, p. 373.

This species proves to be extremely variable, as an examination of the figures of selected individuals will show. In the description Boulenger pointed out that this species was near the Papuan species, *corrugatus*, adding that it differed in having a larger head, larger eyes, shorter hind limbs and stronger subarticular tubercles. Again, however, as in the case of *Cornufer guppyi*, Boulenger quite without comment recorded the Papuan *corrugatus* from New Georgia and Guadalcanar. Until I had handled our series for some time I was inclined to describe a new species based on the smooth old adults; but variations are very great, and the fact that Boulenger ignored these records in his synopsis published in 1918, shows that he had beyond doubt been misled by scanty material.

Dr. Mann procured a splendid series: twenty-seven, of all ages, from Ysabel; eighteen from Tulagi; four from Malaita; four from Atta, high Malaita; one from Rubiana, New Georgia.

Several of the specimens from Atta are tiny individuals, evidently just emerged.

Cornufer guppyi Boulenger

Cornufer guppyi Boulenger, P. Z. S., 1884, p. 211; Trans. Zoöl. Soc. 12, 1886, p. 53, pl. 11, fig. 1.

Cornufer dorsalis Boulenger, P. Z. S., 1887, p. 337.

When Boulenger described this species he had two specimens from Treasury Island, and he closed his description with the remark that: "*Cornufer guppyi* is allied to *C. dorsalis* A. Dum., from the Fiji Islands, but differs chiefly in the broader and more depressed head and the larger disks of the toes." In 1887, without any comment whatsoever, and by name alone, he recorded the Fijian species from Faro Island. This may have been a lapsus, or perhaps, with insufficient material,—for Woodford usually obtained only very small series,—Dr. Boulenger was misled by the variability of the species. Dr. Mann obtained six from the coast of Malaita, one enormous adult, over 100 mm. long; one large adult from Ysabel; one, half-grown, from Santa Ana; five, half-grown and young, from Atta, highlands of Malaita.

It has been possible to compare these with fresh specimens of *C. dorsalis* from Fiji. The adults are easily separable, but the characteristic form of the head is not assumed at once and the size of the digital dilatations varies so that until some much more detailed evidence is forthcoming it is best to exclude this most obviously improbable record.

Rana krefftii Boulenger

Rana krefftii Boulenger, Cat. Batr. Ecaud., 1882, p. 64, pl. 3, fig. 2; Rec. Indian Mus., 20, 1920, p. 186.

This frog is the Solomon Island representative of the Hylorana stock, which is widely spread in Papuasia. Krefft's frog has been reported from New Britain and from most of the Solomon

Islands. It evidently is common. Dr. Mann collected the following specimens: fifty-seven from Bio Island, a small islet near Ugi; three from Ysabel; one from Santa Ana; two from San Cristóbal; one from Graciosa Bay, in the Santa Cruz Archipelago, east of the Solomon Islands and northeast of the New Hebrides.

***Rana guppyi* Boulenger**

Rana guppyi Boulenger, P. Z. S., 1884, p. 211. Rec. Indian Mus., 20, 1920, p. 113.

A really enormous species, by far the largest member of the subgenus *Discodeles*. It has been found on many of the Solomons, but not outside of the Group. Boulenger records the species from New Georgia and Rubiana Islands, among others, but Dr. Mann informs me that the name Rubiana applies to a lagoon on New Georgia, as the literature also indicates. He caught four of these great frogs upon Malaita, apparently a new locality. The specimens previously in the Museum were from Guadalcanar.

***Rana bufoniformis* Boulenger**

Rana bufoniformis Boulenger, P. Z. S., 1884, p. 210; Rec. Indian Mus., 20, 1920, p. 110.

Rana opisthodon Boulenger, P. Z. S., 1884, p. 211; Rec. Indian Mus., 20, 1920, p. 111.

Apparently the only specimens of these frogs which Boulenger had seen when he wrote his revision of the Australasian species of *Rana*, were the type and one other female of *bufoniformis* and five specimens of what he called *opisthodon*. The characters supposed to separate the two species follow:

Tympanum about one third diameter of eye; tibio-tarsal articulation reaching temple; tibia two and one fourth to two

and three fourths times as long as broad; upper parts very warty, with an interrupted glandular dorso-lateral fold; belly granulate *bufoniformis*.

Tympanum two fifths to one half diameter of eye; tibio-tarsal articulation reaching eye; tibia three to three and one half times as long as broad; upper parts smooth or warty; belly feebly granulate *opisthodon*.

Now, most of these characters will be seen at once to be chiefly of degree, and not of kind. The degree of wartiness on the back, and of granulation on the belly, might be expected to vary with age and with various preservation; this is the case. The size of the tympanum and the length of limb, while more stable characters in this case, nevertheless overlap, and no great variability is necessary to bring this about, as a glance at the key will show. The only character then, which might really be expected to separate the species, proves to be most unstable, and I cannot find any line which will separate our series into two categories.

This species likewise pertains to *Discodeles*. Dr. Mann captured a fine series of various ages, but did not find the remarkable eggs which Boulenger figured and described (Trans. Zool. Soc., 12, 1886, p. 50, pl. 10). We have thirteen adults and young from Ysabel; eight from Ugi, four very large; two from Tulagi; one from Malaita; five from San Cristóbal; two from Santa Ana.

The only previous records were for Faro and Treasury (Mono), both small islands in the Shortland Group, so that Dr. Mann's collection adds greatly to our knowledge of the distribution.

A single specimen in the Museum, received from the Australian Museum as *bufoniformis*, but with no definite data except Solomon Islands, is really smoother on the back than any of Dr. Mann's examples, but it has a fairly distinct dorso-lateral glandular fold. This example, however, has been preserved for many years, and is soft and flabby.

SAURIA

Gymnodactylus pelagicus (Girard)

Heteronota pelagica Girard, Proc. Acad. Nat. Sci. Phila., 1857, p. 197.

Gymnodactylus pelagicus Boulenger, Cat. Liz. Brit. Mus., 1, 1885, p. 40.

Dr. Mann secured one example at Rubiana Lagoon, New Georgia, an island from which there was no previous record, although the species was known from the Shortland Group and from Guadalcanar and its occurrence was to be expected.

Gymnodactylus lousiadensis De Vis

Gymnodactylus lousiadensis De Vis, Ann. Queensland Mus., I, 1892, no. 2, p. 11.

Gymnodactylus loriae Boulenger, Ann. Mus. Civico, Genoa, (2), 18, 1897 (1898), p. 695, pl. 1.

Gymnodactylus olivii Garman, Bull. M. C. Z., 39, 1901, p. 1, pl. 1, fig. 1.

Werner first showed that *loriae* was a synonym of this species (Verh. zool.-bot. Ges. Wien, 51, 1901, p. 604), a conclusion which later was doubted by Waite (Rec. Austr. Mus., 6, 1905, p. 13) although the latter has no hesitation in relegating Garman's species to the synonymy. In this I quite agree. Waite doubts strongly that the type of *olivii* ever really came from Queensland, and he quotes Mr. E. A. Olive to the effect that he "Thinks he must have obtained the original [type] from New Guinea." It is interesting, however, to record the presence of a second specimen, in a small collection from Rockhampton, Queensland, which I obtained several years ago, and which contained several typically Australian species. So the species probably does occur in Australia; and, as with so many geckos, its presence or absence is not a matter of moment or a cause for surprise. Waite tells us that the subject of his note, the first

record of this species for the Solomon Islands, was "Taken from the chart drawer in the Government Residency." At first sight these seem the most precisely accurate data; but, however familiar the location of this building may have been to Mr. Waite, I have had some difficulty in locating it. After several changes, it is now at Tulagi in the Florida Islands, and Dr. Mann thinks that in 1904, the year Waite's specimen was captured, the seat of government was at Aula on Guadalcanar. In any case, Mann's capture of a specimen at Auki, Malaita, appears to be the first for that island and the second record for the Solomons.

***Gekko vittatus* Houttuyn**

Gekko vittatus Houttuyn, Verh. Zeeuw. gen. Vlissingen (Middleburg), 1782, 9, p. 325, pl., fig. 2.

The majority of the Solomon Island specimens do not show the bifurcate marking which, with some minor details of squamation pointed out by Peters and Doria (Ann. Mus. Civ. Gen., 13, 1878, p. 368), serve to distinguish the 'variety' *bivittatus* (D. and B.). The details of scalation are very variable, and the distribution of the variant is entirely haphazard. We have, besides two old specimens from Faro, the following from the Solomons: one from Ugi, tail bifurcate; one from Rubiana Lagoon, New Georgia, marking very conspicuous; ten from Wainone Bay, San Cristóbal, mostly wholly unmarked; one from Wai-ai, San Cristóbal.

***Gehyra oceanica* (Lesson)**

Gekko oceanicus Lesson, Voy. Coquille, Zool., 2, 1830, 1, p. 42, pl. 2, fig. 3.
Gehyra oceanica Boulenger, Cat. Liz. Brit. Mus., 1, 1885, p. 152.

This widespread species is represented by three examples from Ugi, one from Rubiana Lagoon, New Georgia, and two from Graciosa Bay in the Santa Cruz Islands.

Gonyocephalus godeffroyi (Peters)

Lophura godeffroyi Peters, Mon. Berl. Ac., 1867, p. 707, pl., fig. 1.

Gonyocephalus godeffroyi Boulenger, Cat. Liz. Brit. Mus., I, 1885, p. 295.

Of this species, already known from many of the Solomons, Dr. Mann took three specimens from Ugi, and four from Wainone Bay and one from Wai-ai, both places on San Cristóbal.

Boulenger (*l. c.*) records a specimen in the British Museum from Fiji, and curiously enough then or since he never thought to query the record. Mann collected for a year in Fiji, where many other naturalists also have worked, without finding a *Gonyocephalus*. To be sure the mongoose has played havoc with the native fauna; but *Brachylophus* has not been exterminated, although it is growing very rare, and did a *Gonyocephalus* occur, we should expect it to have a similar status.

Corucia zebrata (Gray)

Corucia zebrata Gray, P. Z. S., 1855, p. 218, pl. 8.

Corucia zebrata Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 142.

This gigantic scinc seems to be rare, for Dr. Mann secured only one example from Wainone Bay, San Cristóbal, the island whence it first was described. It has been found in the Shortlands and Guadalcanar.

Emoia cyanogaster (Lesson)

Scincus cyanogaster Lesson, Voy. Coquille, Zool., 2, 1830, p. 47, pl. 3, fig. 3.

Lygosoma cyanogaster Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 292.

Four localities are represented: Wainone Bay, San Cristóbal, with forty-six specimens; Santa Ana, one; Ugi, two; and

Fulakora, Ysabel, with one. In 1895 Boettger separated the representative of *E. cyanogaster* in the Halmabera Group of the Moluccas, under the name of *sorex*. It is very probable that with adequate material a still further division of the species can be made, similar to that proposed for *Dasia smaragdinum*. Our specimens from the Solomons are very different in appearance from our Papuan specimens, and from Polynesian examples. Unfortunately we need more material before revision can be attempted.

***Emoia nigrum* (Hombr. and Jacq.)**

Eumeces niger Hombr. and Jacq., Voy. au Pôle Sud (Astrolabe et Zélée), 1842, p. 11, pl. 4, fig. 2.

Lygosoma nigrum Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 297.

Mann preserved nine specimens at Sikiana in the Stewart Islands, another at the Rubiana Lagoon, New Georgia, and ten at Ugi. None of these specimens shows a lateral band darker than the dorsal coloration. The whole series is very dark brown above, quite unspotted, the bellies are creamy white. Another series of eleven, however, from Wainone Bay, San Cristóbal, agree well in squamation, but are more lustrous and have the dorsal surface decorated with many narrow, almost black, wavy cross-bars upon a dark slaty gray field.

***Emoia cyanurum* (Lesson)**

Scincus cyanurus Lesson, Voy. Coquille, Zool., 2, 1830, p. 49, pl. 4, fig. 2.

Lygosoma cyanurum Boulenger, Cat. Liz. Brit. Mus., 33, 1887, p. 290.

Apparently very common. There are about one hundred from Wainone Bay, San Cristóbal; seventeen from Auki, Malaita; six from Ugi; one from Ysabel; and four from Graciosa Bay, Santa Cruz Archipelago. The specimens from Malaita

especially seem very large, much larger than any which I saw or preserved from the Moluccas or Papua in 1905-1907. Werner (Zool. Anz., 21, 1898, p. 553) described *Lygosoma* (*Emoa*) *impar* from Mioko and Ralum, in the once German Bismarck Archipelago. This species is supposed to differ from *E. cyanurum*, in that the midvertebral stripe is on a single row of scales instead of on parts of two rows. The latter condition obtains in our specimens from New Guinea, as well as from the Solomons, and *E. mivarti* has the stripe similarly situated.

***Leiolepisma anolis* (Boulenger)**

Lipinia anolis Boulenger, Ann. Mag. Nat. Hist., (5), 12, 1883, p. 161.

Lygosoma anolis Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 253.

A most curious pallid wraith-like scinc, one of the very characteristic species of the Solomons, and represented by one example from Graciosa Bay, Santa Cruz; four from Ugi; two from Auki, Malaita; and twelve from Wainone Bay, San Cristóbal. The first three localities establish new records.

***Leiolepisma noctua* (Lesson)**

Scincus noctua Lesson, Voy. Coquille, Zool., 2, 1830, p. 48, pl. 3, fig. 4.

Lygosoma noctua Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 256.

Previously known to range widely in Polynesia, to occur also in Fiji and in Papua, this beautiful little lizard has never been taken in the Solomon Islands before. Dr. Mann took a single individual at Rubiana Lagoon in New Georgia. There are two specimens in the Museum of Comparative Zoölogy, recently received from the Rev. J. Annand at Tangoa, Espiritu Santo Island, in the New Hebrides, another new locality. Thus the species ranges widely through Melanesia as well as Polynesia. A curious fact well worthy of note is that, unlike most

of the very widespread species, this form is evidently a very rare one wherever it occurs. Out of all the very many scincs caught by Mrs. Barbour and myself in Dutch Papua only one represented this form, while Mann had exactly the same experience in the Solomons.

Sphenomorphus woodfordi (Boulenger)

Lygosoma woodfordi Boulenger, P. Z. S., 1887, p. 335; Liz. Brit. Mus., 3, 1887, p. 511, pl. 25, fig. 4.

Described from a single specimen, this rare form appears now from two new localities, one specimen from Ugi and six from Wainone Bay, San Cristóbal.

Sphenomorphus solomonis (Boulenger)

Lygosoma solomonis Boulenger, P. Z. S., 1887, p. 334; Cat. Liz. Brit. Mus., 3, 1887, p. 510, pl. 23, fig. 4.

A single specimen from Auki, Malaita, varies somewhat from the original description in having 22, not 24-26, rows of scales about the body, and about 20 or 21 lamellae under the fourth toe, instead of seventeen.

Sphenomorphus concinnatus (Boulenger)

Lygosoma concinnatum Boulenger, P. Z. S., 1887, p. 335; Cat. Liz. Brit. Mus., 3, 1887, p. 511, pl. 26, fig. 4.

A rare species which for a long time was known apparently only from the types, four specimens from Faro Island. It appears, however, to be more widespread, for Mann got one from New Georgia, twelve from Auki, Malaita, and four from

Tulagi. One specimen from each of the last two localities lacks the very characteristic black blotch just aft of the fore limb, on the side. In a specimen already in the Museum, from Bougainville Island, this is replaced with several narrow oblique black bars.

***Dasia smaragdinum perviridis* subsp. nov.**

Type, M. C. Z., an adult from Fulakora, Ysabel Island, Solomons, collected by Dr. W. M. Mann.

Paratypes: five from New Georgia, two from Ysabel, one from Malaita, and seven from Graciosa Bay, Santa Cruz Archipelago.

Similar to *D. s. smaragdinum* of Papua, but wholly brilliant green throughout; not with a green head, and a body fading to bronzy, or in alcohol to brownish, posteriorly.

In 1912 I pointed out that this lizard was one of the few of the widely distributed scincs which had broken up into very distinct geographical races, differing constantly and widely from each other in pattern. I noticed this first while observing the living specimens in the field in the Dutch East Indies. In 1915 Miss de Rooij in her 'Reptiles of the Indo-Australian Archipelago' (Vol. I, Leyden, 1915, p. 201) described and added the race from Celebes, equally distinct. Unfortunately she gave this a new name, *celebense*, although she mentioned having Oudemans' type of *acutirostre* from Saleyer, and that it represented the very form she was naming. The races therefore should stand:—

Dasia smaragdinum smaragdinum (Lesson). Misol, Waigiu, Papua, and perhaps New Britain and New Ireland, from which last two islands I have not seen specimens.

Dasia smaragdinum acutirostre (Oudemans). Celebes and the surrounding islands.

Dasia smaragdinum moluccarum Barbour. The Moluccas, widespread.

Dasia smaragdinum viridipunctum (Lesson). Pelew, Marshall and Caroline Islands.

Dasia smaragdinum perviridis Barbour. The Solomon Islands.

Riopa albofasciolata (Guenther)

Eumeces albofasciolatus Guenther, Ann. Mag. Nat. Hist., (4), 10, 1872, p. 370.

Lygosoma albofasciolatum Boulenger, Cat. Liz. Brit. Mus., 3, 1887, p. 302, pl. 24.

A fine great scinc, previously recorded in the Solomons from Faro and Guadalcanar and now brought by Mann from Auki, Malaita (one specimen), from Ugi (two), and from Wainone Bay, San Cristóbal (one adult and one young).

SERPENTES

Typhlops aluensis Boulenger

Typhlops aluensis Boulenger, P. Z. S., 1887, p. 336, pl. 28, fig. 2.

This snake was described from a single specimen taken at Alu in the Shortland Islands. Dr. Mann sends us another single specimen from Keri Keri, on San Cristóbal Island. It agrees very well with Boulenger's short original description and with the excellent figure.

Typhlops olivaceus reduncus subsp. nov.

Plate V

Type, M. C. Z., no. 14,269, from Keri Keri, San Cristóbal Island, Solomon Islands; Dr. W. M. Mann, collector.

Very similar to true *T. olivaceus*. Miss Joan Proctor has very kindly compared a drawing of this specimen with the series of *olivaceus* in the British Museum. She considers our example

olivaceus with "an extra prominent snout." I did not send her profile sketches, but only dorsal views to show especially the excrescences which, she informs me, are more marked than in any of the examples in the British Museum. Had I sent her a profile of this Solomon Island specimen, she would possibly agree to my establishing a race on the following diagnosis:—

Similar to true *T. o. olivaceus* from the Philippines, which has been recorded also from the Moluccas and Australia, but with a much longer and more sharply produced rostral scale and a much more conspicuously developed ornamentation of excrescences.

It is not improbable that large series will show that other geographic races occur within this species for, in general, *Typhlops* individuals from one locality do not vary extensively in the configuration of the cephalic shields.

***Typhlops cumingii mansuetus* subsp. nov.**

Plate VI

Type, M. C. Z., no. 14,270, from Keri Keri, San Cristóbal, Solomon Islands; W. M. Mann collector.

Similar to *T. c. cumingii* from the Philippine Islands, but with numerous fine warty excrescences on the snout, which lacks the narrow, subcrescentic, sharp, transverse edge described for the type. The rostral is somewhat wider, and the prefrontal seems to be somewhat larger, than in the type which Miss Proctor has very kindly sketched for me.

I sent Miss Proctor drawings of the upper surfaces of the head in this and in the preceding species. I wish I had sent her profile views as well, as the differences are thus more visible. For her kindness in making comparisons and sketches I wish to thank her most heartily. It is also only fair to Miss Proctor to say that

she in no wise suggested my naming these forms.¹ I have done so because I think more material will prove them to be valid geographic races.

***Enygrus australis* (Montrouzier)**

Boa australis Montrouzier, Rev. et Mag. Zool., 12, 1860, p. 95.

Enygrus australis Boulenger, Cat. Snakes Brit. Mus., 1, 1893, p. 105.

Mann procured four at Graciosa Bay, Santa Cruz Islands, and writes me that they were very common there. He also preserved three on Ugi.

***Enygrus carinatus* (Schneider)**

Boa carinata Schneider, Hist. Amph., 2, 1801, p. 261.

Enygrus carinatus Boulenger, Cat. Snakes Brit. Mus., 1, 1893, p. 107.

Several color phases are represented in Mann's series of one from Bio Island, one from Ysabel, seven from Malaita, and twelve from Ugi.

***Enygrus bibronii* Hombr. and Jacq.**

Enygrus bibronii Hombr. and Jacq., Voy. Pôle Sud (Astrolabe et Zélée), 1842, p. 18, pl. 1.

Enygrus bibronii Boulenger, Cat. Snakes Brit. Mus., 1, 1893, p. 106.

Two from Bio Island near Ugi were the only ones found.

¹ She writes, under date of May 2, 1921, as follows: "I have at last found time to compare your drawings with the types and other specimens of *Typhlops olivaceus*. Neither drawing corresponds exactly, and as the differences are very difficult to describe, I have made some very rough sketches which may convey my meaning better than words. You will notice that although they all agree in essentials, there is considerable variation, especially in the shape of the rostral. Personally, judging from your drawings alone, I should say that 14,269 was *T. olivaceus* with an extra prominent snout, and that 14,270 resembled *T. cumingi* in general outline, etc. In none of our specimens are the excrescences as marked as in yours."

Dendrophis calligaster Guenther

Dendrophis calligaster Guenther, Ann. Mag. Nat. Hist., (3), 20, 1867, p. 53.

Dendrophis calligaster Boulenger, Cat. Snakes Brit. Mus., 2, 1894, p. 80.

The type came from Cape York, Australia, where the snake is very rare. The Museum of Comparative Zoölogy has it from Rockhampton, Queensland, from Murray Island in Torres Straits, and from New Britain. Miss Proctor writes me that the British Museum has received it only once from Australia (Cooktown) since the type was discovered. In the Solomons it is more common, and Dr. Mann preserved two adults from Malaita; one adult and one young from Rubiana, New Georgia; one adult from Fulakora, Ysabel, and one from Bio, a small island near Ugi.

Boiga irregularis (Bechstein)

Coluber irregularis Bechstein, Ueber Lacépède, 4, 1802, p. 239, pl. 37, fig. 1.

Dipsadomorphus irregularis Boulenger, Cat. Snakes Brit. Mus., 3, 1896, p. 75.

While this snake was known to Boulenger (P. Z. S., 1887, p. 90) from most of the Solomons, except the group about San Cristóbal, nevertheless Mann's localities are all new. He has two from Fulakora, Ysabel; three from Auki, Malaita, and one from Ugi.

Denisonia melanura Boulenger

Hoplocephalus melanurus Boulenger, P. Z. S., 1888, p. 88; P. Z. S., 1890, p. 30, pl. 2, fig. 1.

Denisonia melanura Boulenger, Cat. Snakes Brit. Mus., 3, 1896, p. 345.

Boulenger gave no type locality for this species when he described it; in his table of distribution or summary of the

fauna, however, he credits the species to Guadalcanar. A single specimen in Dr. Mann's collection agrees so well with the description that there can be little question of its identity with *melanurus*, yet it came from Fulakora on Ysabel Island. Guadalcanar is some distance away, and is separated from Ysabel by Tulagi and the Florida Group, — among many other lesser islets, — and Florida Island, which thus divides the range of *melanurus*, is the type locality of *D. elapoides* Boulenger. These most curious and unusual circumstances require further elucidation.

Denisonia woodfordi Boulenger

Hoplocephalus woodfordi Boulenger, P. Z. S., 1888, p. 89; P. Z. S., 1890, p. 30, pl. 2, fig. 2.

Denisonia woodfordi Boulenger, Cat. Snakes Brit. Mus., 3, 1896, p. 346.

One adult and one young from Rubiana Lagoon, New Georgia Island. The young is typical, but the adult lacks the cross bands figured by Boulenger (*l. c.*); nevertheless it has seventeen rows of scales and proportions also agreeing perfectly, so that except for coloration it is really a counterpart of the type. Another fine typical adult affords a new locality record for Rendora Island, which is southeast of New Georgia and hitherto has been little known.

Laticauda colubrina (Schneider)

Hydus colubrinus Schneider, Hist. Amph., I, 1799, p. 238.

Laticauda colubrina Stejneger, Herpetology of Japan, Bull. U. S. Nat. Mus., 58, 1907, p. 406.

Two adult specimens from Rubiana, New Georgia Island, give us a definite record from a region whence exact data for this species are rare.

EXPLANATION OF THE PLATES

PLATE II

Large adult of *Platymantis solomonis*, from Ysabel Island, showing almost smooth dorsum.

PLATE III

Two half-grown individuals of *Platymantis solomonis*, the upper from Ysabel and the lower from Rubiana, New Georgia, to show varying rugosity.

PLATE IV

Two other individuals of the same species, both from Tulagi, showing variation in rugosity. The variability illustrated on these three plates is in no wise correlated with locality.

PLATE V

Dorsal and lateral aspects of head of *Typhlops olivaceus reduncus*, type.

PLATE VI

Dorsal and lateral aspects of head of *Typhlops cumingii mansuetus*, type.